CLAIMS

1. Use of inhibitors selected from the group consisting of cAMP antagonists, hammerhead ribozymes, sequence specific antisense oligo nucleotides and anchoring disruption peptides wherein said inhibitors selectively or specifically abolish the function of cAMP dependent protein kinase (PKA) type Iα ($RI\alpha_2C_2$), to produce a pharmaceutical preparation to treat immunosuppressive diseases.

2. Use according to claim 1 wherein the cAMP antagonist is a thio-substituted cAMP analog (derivate of adenosine-3', 5'-cyclic monophosphorothioate, Rp-isomer) characterized in that it will bind the RIα subunit and act as a selective or specific antagonist of PKA type Iα.

3. Use according to claim 1 and 2 where the cAMP antagonist is Rp-8-Br-cAMPS or Rp-8-Cl-cAMPS.

4. Use according to claim 1-2, wherein the hammerhead ribozyme has the following base sequence;
GUACUGCCACUGAUGAGUCCGUGAGGACGAAACUCCAUG (SEQ.ID. NO 5).

5. Use according to claim 1, wherein the hammerhead ribozyme has the base sequence:
GGCGGUACUGCCACUGAUGAGUCCGUGAGGACG,A-AACUCCAUGGA (SEQ.ID. NO 6).

6. Use according to claim 5, wherein the hammerhead ribozyme is stabilized by incorporation of 2-deoxy-cytosine and 2-deoxy-uracil analogs.

7. Use according to claim 1, wherein the sequence specific antisense nucleotide has the base sequence; GTACTGCCAGACTCCATG (SEQ.ID. NO 7).

8. Use according to claim 1, wherein the sequence specific antisense nucleotide has the base sequence; GGCGGTACTGCCAGACTCCATGGT (SEQ.ID. NO 8).

9. A method of inhibiting the effects mediated by PKA type Iα by disrupting anchoring of PKA type Iα which involves competition of the localization of PKA type Iα with the T cell receptor/CD3 complex.

10. Use according to claim 1, wherein the competitive anchoring disruptive peptide contains at least 22 amino acids.

11. Use according to claim 10, wherein the amino acids are H_2N-Asp-Leu-Ile-Glu-Glu-Ala-Ala-Ser-Arg-Ile-Val-Asp-Ala-Val-Ile-Glu-Gln-Val-Lys-Ala-Ala-Tyr-COOH (SEQ.ID. NO 1).

12. Use according to claim 10, wherein the amino acids are. H_2N-Asp-Leu-Ile-Glu-Glu-Ala-Ala-Ser-Arg-Ile-Val-Asp-Ala-Val-Ile-Glu-Gln-Val-Lys-Ala-Ala-Gln-Ala-Tyr-COOH (SEQ.ID. NO 2).

13. Use according to elaim 10, wherein the amino acids are; H_2N-Gln-Val-Ile-Ser-Glu-Ala-Thr-Gln-Val-Leu-Ala-Thr-Thr-Val-Gly-Lys-Val-Ala-Gly-Arg-Val-Cys-Gln-Ala-COOH (SEQ.ID. NO 3).

14. Use according to claim 10, wherein the amino acids are; H_2N-Val-Gln-Gly-Asn-Thr-Asp-Glu-Ala-Gln-Glu-Glu-Leu-Ala-Trp-Lys-Ile-Ala-Lys-Met-Ile-Val-Ser-Asp-Val-Met-Gln-Gln-Ala-His-His-Asp-Gln-Pro-Leu-Glu-Lys-Ser-Thr-Lys-Leu-COOH (SEQ.ID. NO 4).

15. A peptide comprising a sequence as described and defined in claims 10, 11, 12, 13 and 14 for use to disrupt anchoring of PKA Iα.

16. Hammerhead ribozymes having a nucleotide sequences as defined in claims 4 to 6 for use to disrupt expression of R Iα.

17. Antisense oligonucleotides comprising a nucleotide sequences as defined in claims 7 and 8 to disrupt expression of RIα.

18. Pharmaceutical compositions comprising a inhibitor as defined in any one of claims 1 - 17 and one or more pharmaceutically acceptable adjuvant or filler.

19. Inhibitors as defined in any one of claims 1 to 18 for use as a medicament.

20. Inhibitors as defined in any one of claims 1 to 19 for use to treat immunosuppressive diseases.

21. Use according to claim 1 to 20 wherein the immunosuppressive diseases are AIDS, HIV infection or CVI.